#### **CHAPTER 17**

### SUITABLE SINGLE-POINT RIGGING PROCEDURES FOR HOWITZERS

## 17-1. Introduction

This chapter contains rigging procedures for single-point lift of howitzers that are suitable for sling load. Each rigging procedure is found in a paragraph that includes a description of the load, materials required for rigging, and steps to complete the procedure. An applicability paragraph is also a part of each paragraph and identifies the suitable loads. The suitable single-point rigging proce-

dures for howitzers are in this section. Paragraph 17-2 gives detailed instructions for rigging the load.

NOTE: Reach Pendants may be used on all single point loads. A static discharge person is not required when using a Reach Pendant.

## 17-2. M114A1 155-MM Howitzer with or without Accompanying Load

**a. Applicability.** The following items in Table 17-1 are suitable for sling load by all **ARMY** helicopters with suitable lift capacity:

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Howitzer, Towed, 155-MM, M114A1	12,660	25K	53/3	90
Howitzer, Towed, 155-MM, M114A1 with Accompanying Load	15,160	25K	53/3	85

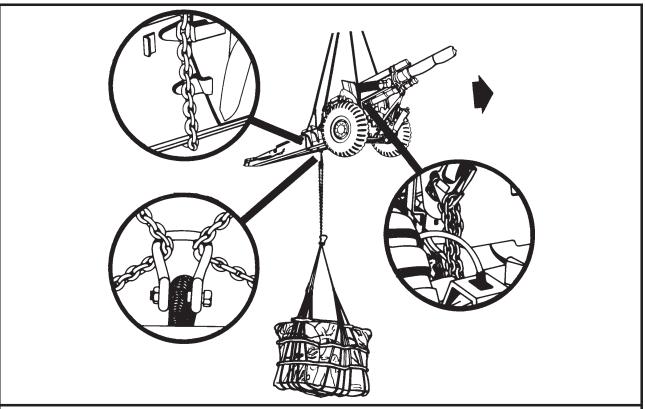
- **b. Materials.** The following materials are required to rig this load:
  - (1) Sling set (25,000-pound capacity).
- (2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.
  - (3) Cord, nylon, Type III, 550-pound breaking strength.
- (4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.
  - (5) Tie-down strap, cargo, CGU-1/B (as required).
  - (6) Clevis assembly, large, MS 70087-3.

- (7) Bag, cargo, A-22 or cargo net.
- (8) Sling leg assembly from a 10,000 or 25,000-pound capacity sling set.
- **c. Personnel.** Two persons can prepare and rig this load in 35 minutes.
- **d. Procedures.** The following procedures apply to this load:
- (1) **Preparation.** Prepare the load using the following steps:
- (a) Stow all howitzer equipment, including sights, in the proper place except for the spade key.

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- **(b)** Stow the spade key in the section chest. Secure all equipment with tape or Type III nylon cord.
- (c) Secure the section chest on the rear of the trails by routing the tie-down strap through the handles of the chest and both trail lifting handles. Secure the excess strap.
- (d) Secure the spades to the brackets with Type III nylon cord. Secure all cables and hoses to the sides of the trails with tape or Type III nylon cord.
- (e) Secure the trail latching handle in the closed position with Type III nylon cord and insert the trail locking pin.
  - (f) Engage one hand brake.
- (g) Place the left ballistic shield in the raised position.

- (h) Remove or secure all gun covers.
- **(2) Rigging.** Rig the load according to the steps in Figure 17-1.
- (3) Hookup. The hookup team stands on the trails near the breech. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.
- **(4) Derigging.** Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



### RIGGING STEPS

- 1. Position apex fitting on top of the breech. Route outer sling legs 1 and 2 to the barrel and inner sling legs 3 and 4 to the trails. Sling legs 1 and 3 must be on the left side of the load. Position the large clevis on the ground between the trails.
- 2. Loop the chain end of sling leg 1 through the left front lifting bracket inboard of the left wheel. Place the correct link from Table 17-1 in the grab hook. Repeat with sling leg 2 and the right front lift provision. Secure the excess chain with Type III nylon cord.
- **3.** Pull sling legs 1 and 2 up until the chains are tight and tie or tape (breakaway technique) the grab hooks to the ballistic shields.
- **4.** Loop the chain end of sling leg 3 down through the spade key bracket on the left trail, under the trail, and up through the large clevis. Place the correct link from Table 17-1 in the grab hook.

- **5.** Loop the chain end of sling leg 4 down the outside of the right trail behind the rear edge of the spade, under the trail, and up through the large clevis. Place the correct link from Table 17-1 in the grab hook.
- **6.** Pull the grab hooks on sling legs 3 and 4 tight while keeping the large clevis centered between the trails.
- 7. Remove the bolt from the clevis between the trails, place the eye of the additional sling leg assembly in the clevis and replace the bolt. The sling leg eye must be around the bolt.
- **8.** Route the sling leg under one trail and to the A-22 bag. Loop the chain end through the suspension clevis of the A-22 cargo bag and insert link 3 in the grab hook. If a cargo net is used, the apex fitting may be hooked directly to the large clevis.
- **9.** Cluster and tie or tape (breakaway technique) all sling legs together on top of the breech to prevent entanglement during hookup and lift-off.

Figure 17-1. M114A1 155-MM Howitzer with or without Accompanying Load